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Instructions for use

SOME *ALEYRODIDAE* FROM MAURITIUS (*HOMOPTERA*)

By

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(With two Textfigures)

Aleurotrachelus orchidicola new species

Pupa case: Pale yellowish brown, with a very long stout waxy projection on the dorsum, which is vertical and often divided at the apex. Elliptical, somewhat narrower anteriorly, very slightly constricted across the thoracic tracheal combs, not pointed at the front, not indented at the hind end, without prominent setae. Suture between the meso- and metanotum distinct; suture between the thorax and abdomen reaching the submarginal area, far separated from the suture between the meso- and metanotum; abdomen sclerotised between the 7th and 8th segments, the 8th slightly longer than the 7th; rhachis slightly developed near the median segmented area, short. Dorsum with some rather large circular pores scattered on the submarginal area, 4-8 very small rounded papillae or pores arranged in a row laterad of the median segmented area of each of the 3rd-6th abdominal segments, and with similar pores in a row on the median area of each of the 2nd-7th; 3 pairs of very small simple setae present on the lateral parts of the submarginal area of cephalothorax, 3 or 4 pairs of similar setae also on the abdomen, which are not reaching the margin, about 0.014 mm. long, and about 0.032-0.036 mm. distant from the margin excluding the outer row of teeth; a pair of longer setae in front of the vasiform orifice as usual, and a pair of more long ones also near the hind end. Longitudinal folds rudimentary, faint, reaching the 2nd abdominal segment. Thoracic tracheal folds and caudal furrow absent; thoracic combs distinct, with 4 slender teeth, which are nearly parallel-sided, rounded apically, equal in length, not reaching beyond the marginal teeth, scarcely sunken, and almost as long as the marginal teeth. Caudal comb with about 8 teeth, which are not distinctly differentiated from other marginal teeth, stout, a little broadened towards the base, rounded at the apex, and as long as the marginal teeth. Margin not strongly sclerotised; the teeth in 2 rows, outer teeth triangular, slightly longer than wide, obtusely pointed apically, in contact with each other at the base, 11 or 12 of them occupying a space of 0.092 mm., those near the caudal comb rounded

apically; inner teeth indistinct, rounded or truncate apically, the apices reaching the bases of outer teeth. Vasiform orifice on a protruding part, slightly longer than wide (including the margin), rounded, not notched, lacking teeth, not thickened on the margin. Operculum nearly as long as wide, a little constricted at the hind end, truncate and slightly indented at the hind margin, occupying most of the orifice. Lingula setose, a little exposed, knobbed, with a pair of long setae. Space between the vasiform orifice and the hind end of pupa case almost as long as the orifice.

Pupa case 0.97 mm. long, 0.76 mm. wide. Median segmented area of 4th abdominal segment 0.25 mm. wide. Vasiform orifice including margin 0.046 mm. long. Tooth of thoracic comb 0.009 mm. long. Dorsal seta near hind end 0.092 mm. long. Distance between dorsal setae near hind end 0.078 mm.

Host—An orchid.

A few pupa cases were taken by Mr. R. MAMET at Les Mares, Mauritius, May 7, 1938. This species is characterised by the faint longitudinal folds and by the stout vertical projection of wax on the dorsum.

***Aleurotrachelus filamentosus* TAKAHASHI**

A few larvae were taken on *Labourdounaisia calophylloides* by Mr. R. MAMET, January 15 and May, 1938, at Les Mares, Mauritius. The food plant was previously unknown.

***Aleuroplatus latus* new species**

Pupa case: Black, with white wax. Very wide, broadest on the basal part of abdomen, a little longer than wide, constricted across the thoracic tracheal combs, narrowed on the anterior part, but not pointed at the front end, almost straight on the hind end, strongly sclerotised. Mid-thoracic suture not reaching the margin; pro- and mesonotum entirely fused together, suture between the meso- and metanotum prominent, but rather short; suture between the thorax and abdomen short, much produced anteriorly at the middle, but not reaching the suture between the meso- and metanotum; abdominal segments faintly discernible on the median rather narrow area, the 8th segment longer than, and distinctly defined from, the 7th; rhachis somewhat developed, short. Dorsum without granules, distinct markings and pores, with a pair of small setae in front of the vasiform orifice, and a pair of long fine setae near the hind end; very narrow marginal area defined by a narrow more sclerotised part. Eyes wanting. Thoracic tracheal folds not discernible, the combs with about 10 teeth, which are distinctly longer than wide, parallel-sided, rounded at the tip, subequal in size, rather stout, closely arranged, but separated from each other, a little longer than other marginal teeth, but not reaching beyond their apices. Caudal

furrow absent. Caudal comb with about 5 teeth, which are similar to those of the thoracic ones. Marginal teeth distinct, stout, nearly as long as wide, narrowed towards the tip, rounded apically, at the base as wide as the teeth of combs, about 12 of them occupying a space of 0.092 mm. Vasiform orifice subcordate, a little longer than wide, not notched, protruding, lacking teeth, not thickened on the anterior margin. Operculum occupying two-thirds or most of the orifice. Lingula a little exposed. Distance between the orifice and the hind end of pupa case nearly as long as the orifice. Venter with numerous very minute dark spots on the median area. In specimens treated with SCHULZ's mixture, 4 pairs of large darker areas present laterad of the median area of abdomen.

Pupa case 1.0 mm. long, 0.85 mm. wide. Vasiform orifice 0.056 mm. long. Marginal defined area 0.015 mm. wide (including teeth). Thoracic comb 0.065 mm. wide.

Host—An undetermined indigenous tree.

Many pupa cases were collected by Mr. R. MAMET at Les Mares, Mauritius, January 15 and May 7, 1938.

Somewhat related to *Aleuroplatus joholensis* CORBETT, but differs in the pupa case more constricted on the cephalothorax and not pointed at the front end, the dorsum wanting distinct pores, the thoracic combs with shorter teeth, the vasiform orifice lacking teeth, the suture between the thorax and abdomen not reaching the margin, etc. Somewhat resembles *A. cadabae* PRIESNER et Hosny, but the cephalic part narrower, the eyes absent, the vasiform orifice larger and nearer to the hind end of pupa case.

***Aleuroplatus pileae* new species**

Pupa case: Black, with a prominent fringe of white wax along the whole margin. Oblong, about 1.5 times as long as wide, broadest at the 2nd abdominal segment, distinctly constricted across the thoracic combs, rounded at

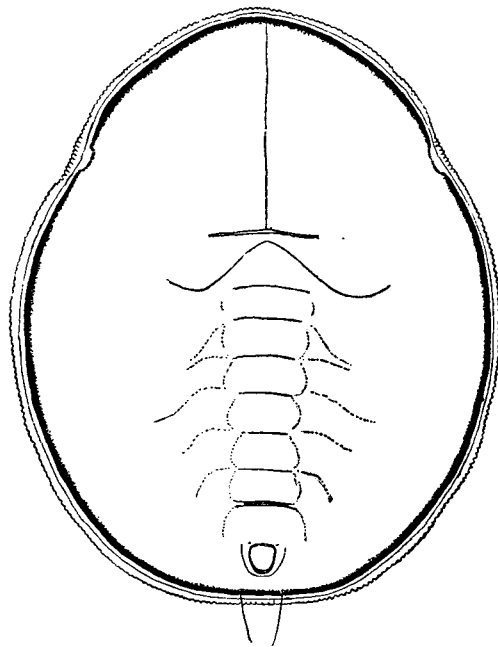


Fig. 1

Pupa case of Aleuroplatus latus n. sp.

the front margin, somewhat indented at the hind end, sclerotised. Mid-thoracic suture thin, reaching the margin; mesonotum not defined from the pronotum; suture between the meso- and metanotum prominent; suture between the thorax and abdomen rather short, not reaching the margin, slightly extending cephalad on the lateral part, but not reaching the anterior part of metanotum; abdominal segments distinct on the median area, each with a pair of small

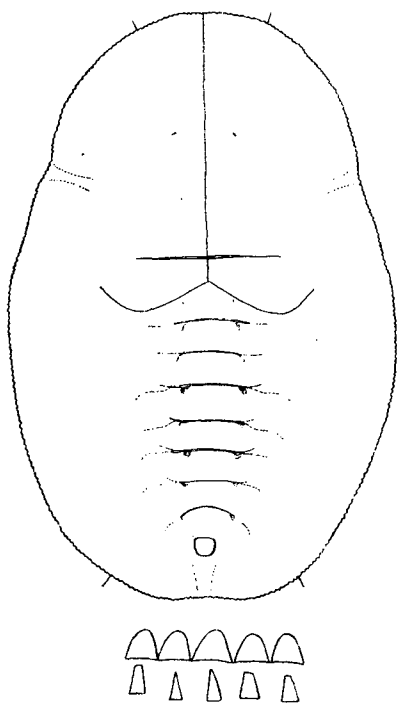


Fig. 2.

Aleuroplatus pilcae n. sp.

Pupa case and its marginal area.

subcircular dark markings on the median area near the anterior margin, the basal segment pointed at the middle of the anterior margin. Eyes wanting. Dorsum with many very minute translucent circular pores in transverse rows on the median segmented area of abdomen, and many indistinct very small circular dusky pores scattered, which are arranged in a row on the median area of each abdominal segment. Thoracic tracheal folds distinct, rather short, with no markings; thoracic combs not sunken, with 4 teeth, which are small, rounded at the apex, subequal in size, very closely arranged, smaller than, but sometimes scarcely differentiated from, other marginal teeth. Caudal comb similar to the thoracic ones. Margin with 2 pairs of usual setae; marginal teeth distinct, in a row, nearly as long as, or slightly longer than, wide, somewhat widened towards the base, rounded apically, mostly not in touch with each other at the base, and 12 of them occupying a space of about 0.092 mm.; many very small subquadrangle or triangular

clear parts arranged in a single row near the bases of the teeth, which are smaller than, and equal in number to, the teeth. Vasiform orifice rather small, distinctly shorter than the space between itself and the hind end of pupa case, subcordate, a little longer than wide, not notched, without teeth; the anterior marginal area not expanded, not defined from the 8th abdominal segment. Operculum as long as wide, truncate at the hind margin, occupying most of the orifice. Lingula not exposed.

Pupa case 1.02 mm. long, 0.67 mm. wide. Vasiform orifice 0.042 mm. long

(including margin). Distance between vasiform orifice and hind end of pupa case 0.069 mm.

Host—*Pilea balfouri*.

Some specimens were collected on Mt. Cocotte by Mr. R. MAMET, November 26, 1938. This species is characterised by the oblong pupa case being rounded at the front end and distinctly constricted on the cephalothorax, and by the presence of very small clear parts in a row along the bases of marginal teeth.

***Bemisia tabaci* GENNADIUS**

Many pupa cases and a few adults were taken on the leaves of tobacco at Réduit, Mauritius, by Mr. R. MAMET, April 1, 1938. Hitherto unknown from Mauritius. In some pupa cases the dorsum is provided with long setae, which are wanting in other individuals. *Bemisia gossypiperda* MISRA et LAMBA and *B. hibisci* TAKAHASHI are synonyms of this species.

***Dialeurodes mauritiensis* TAKAHASHI**

Pupa case: Venter with circular markings at least on the marginal area. Dorsal reticulations dense, each nearly quadrate. Pale yellow in some dried specimens.

Some larvae were taken on Mt. Corps de Garde, Mauritius, by Mr. R. MAMET, January 30, 1938.

(The type specimens are in the collections of the author and the collector).